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# STAMPING OUT HOG CHOLERA



Animal Health Division  
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# STAMPING OUT HOG CHOLERA

The battle to wipe out hog cholera has reached the crucial stage.

With the phasing out of hog cholera vaccination in mid-1969, eradication efforts acquired new urgency. For, although stopping vaccination eliminates the possibility of vaccine-caused outbreaks, it also creates the potential for more rapid spread.

Therefore, efforts against the disease have been stepped up, and each outbreak is handled on an emergency or "stamp out" basis. Purpose of these "stamping out" efforts is to eradicate hog cholera just as quickly as possible.

## ***What will eradication mean to producers?***

It will mean a big savings—plus ending the worry about this disease. Before the start of the eradication program, it is estimated that the net profit from one of every five pigs marketed went to pay for hog cholera control. Total cost to the swine industry was \$50 million a year—every year. Eradication will eliminate these costs.

## ***But is it really possible to wipe out a disease?***

Yes. This country has a long history of eradicating animal disease, starting back in 1892 when contagious pleuropneumonia was wiped out. Other diseases which followed and no longer exist in this country include cattle tick fever, foot-and-mouth disease, and vesicular exanthema (VE), to name just a few.

The cooperative State-Federal hog cholera eradication program, authorized by Congress in 1961, got underway in late 1962.

## ***What's the approach to hog cholera eradication?***

Basically, the approach is the same as any disease eradication program: Find the disease, confine it, and eradicate it. In other words, "Find—confine—stamp out."

## ***How does the eradication program work?***

The hog cholera eradication program is divided into four steps or phases. They are: Phase I—Preparation; Phase II—Reduction of Incidence; Phase III—Elimination of Outbreaks; and Phase IV—Protection against Reinfection. Each phase represents a buildup in a State's fight against hog cholera until the disease is wiped out.

The standards for this four-phase program were approved by the U.S. Animal Health Association—an organization representing State livestock disease-control officials—before being adopted by USDA as a framework for cooperative programs with the States.

## ***What's involved first?***

Phases I and II are the control phases—getting the program organized and underway and then reducing the incidence of the disease. The control effort includes (1) establishing a reporting system for the disease, (2) quarantining all outbreaks, (3) investigating outbreaks to find their source, (4) controlling movements of swine within and between States, and (5) making sure all garbage fed to hogs is properly cooked.

## ***When does a State begin "stamping out" efforts?***

A State enters the eradication phases (Phase III or IV) after control measures have reduced disease incidence so it is practical to eliminate infected herds and pay farmers indemnities for hogs which must be destroyed. The purpose of these "stamping out" efforts is to wipe out all traces of the disease. Prompt and complete disposal of infected herds breaks the chain of infection; it eliminates the possibility of carrier pigs.

In both Phase III and IV, outbreaks of hog cholera are handled on an emergency "stamp out" basis. Phase III continues while the remaining pockets of infection are being eliminated. Phase IV is for States in which hog cholera is no longer known to exist. It provides a surveillance period before a State is officially declared "hog cholera free."

## ***How does a State become "hog cholera free"?***

There are two major requirements: (1) No confirmed outbreaks for at least 1 year. (2) No live virus hog cholera vaccines used for at least 1 year.

A State can maintain "free" status as long as it experiences only primary outbreaks—that is, confined to one farm with no spread to other premises after the disease is located. But if the infection is not promptly stamped out, or if spread occurs after the disease is found, then the State loses its status and must go for at least 1 year without a confirmed outbreak to again qualify as "hog cholera free."

## ***What's the purpose of indemnities?***

In most instances when hogs are destroyed, it is necessary to compensate the owner for his losses with indemnity payments from State-Federal funds. Also, indemnities help discourage the marketing of sick pigs.

## ***On what basis are indemnities paid?***

Hogs to be destroyed are appraised at their actual value for meat, feeding, or breeding purposes. Indemnity payments, shared by the State and Federal Governments, are based on this appraisal. The Federal share of indemnity can be no greater than \$100 per head for purebreds or \$50 for grades. With most States matching Federal payments, this means the maximum payments are \$200 for purebreds and \$100 for grades.

Indemnities are intended to compensate the owner as



nearly as possible for his losses—paying him neither too much nor too little.

### ***What does eradication mean?***

It means just what it says—wiping out a disease. A more technical definition is: Elimination of the virus or disease-causing organism so that no outbreaks occur, even in the absence of control measures—including vaccination.

### ***What is the role of vaccination in the eradication program?***

Vaccination was important in the early years. At that time, increased vaccination was stressed to help reduce the incidence of hog cholera.

But although vaccines helped control hog cholera, it is also possible for them to cause the disease. Thus, in the final “stamping out” effort, the vaccines must be eliminated. State and Federal action by July 1969 eliminated vaccine use for all practical purposes.

### ***What about serum?***

Anti-hog-cholera serum (or antibody concentrate) continues to be available for use in protecting pigs in transit. Check with animal health officials for specific details on shipping rules.

### ***Will ending vaccination make eradication easier?***

Not necessarily easier—but it does make it possible.

Ending vaccination eliminates the possibility of vaccine-caused outbreaks. On the other hand, without the “cushion” of a partially vaccinated hog population, the potential for rapid spread becomes much greater.

### ***Then won't we be likely to have a disastrous epidemic when we have a completely susceptible hog population?***

It is possible—but not likely. Our experience demonstrates that a hog cholera epidemic can be stopped before it gets out of hand.

There will, no doubt, be spread of the disease—with potentially explosive situations. But if time-tested eradication measures (find—confine—stamp out) are applied effectively, these dangerous situations can be eliminated.

The ability to handle hog cholera in an unvaccinated hog population has been demonstrated in a number of States—some with many hogs—as well as by the successful hog cholera eradication programs carried out in Canada and in Great Britain.

### ***What do I do if I think my pigs have hog cholera?***

Report the situation immediately to your veterinarian, county agent, or State or Federal animal health office. This is extremely important to insure that you receive maximum assistance, and to prevent any possible spread of the disease. No pigs should be removed from the farm until help arrives.

Specially-trained diagnosticians are standing by to assist in determining whether or not hog cholera is actually present. Your herd will probably be placed under quarantine while the diagnosis is being made. This usually takes about 48 hours.

### ***What happens if my herd is infected?***

Most States are in Phase III or IV of the eradication program, which means that the entire infected herd will be disposed of and you will receive State-Federal indemnities to help compensate you for your losses. The quarantine will be continued while the hogs are appraised and arrangements are made for disposal. You will participate in appraisal of the herd. Following disposal, the premises must be cleaned and disinfected before restocking is permitted. State or Federal animal health personnel will be present for advice and assistance.

Usually you can restock your farm 3 to 4 weeks after cleaning and disinfection. This depends somewhat on factors such as the weather, sanitation, and type of facilities involved.

### ***What can I do to help eradicate hog cholera?***

Basically, there are five things you as an individual producer can do.

- First of all, report any sickness in pigs immediately to your veterinarian, county agent, or State or Federal animal health officials. Remember, indemnities cannot be paid on hogs that die before the first visit of a regulatory official.

- Second, follow good management. Isolate your herd from contact with other hogs. Keep visitors out. Don't buy bargain pigs. Purchase replacement stock only from reliable sources and isolate these pigs from the rest of your herd for at least 21 days. Watch your hogs closely so that if sickness does develop you can call your veterinarian right away to find out what the trouble is.

- Third, follow shipping rules when you buy or sell hogs.

- Fourth, don't feed table scraps or garbage to hogs, unless you're equipped to cook it properly.

- And fifth, if an outbreak should strike your herd, observe all quarantines and cooperate fully with animal health officials who are trying to locate the source of the disease and prevent any further spread.

This publication supersedes PA 577, "What You Should Know About Hog Cholera," and PA 628, "Questions and Answers About Eradicating Hog Cholera."



## What you should know about—

# HOG CHOLERA

Hog cholera is an infectious, contagious virus disease that affects swine only. The disease can be highly fatal. In some instances, however, it can appear in chronic form, with low death losses over an extended period.

The disease was first recognized in Ohio and along the Wabash River in Indiana in the early 1830's. From there, hog cholera spread throughout the country and is now found in all foreign countries producing swine with the exception of those where effective eradication programs have been undertaken—e.g., Canada and Great Britain.

### CAUSE OF HOG CHOLERA

Hog cholera is caused by a single virus. Strains of the hog cholera virus may differ in virulence or killing power.

The ability of the virus to exist outside the pig depends on the temperature. Freezing tends to preserve the virus; heat tends to kill it. In experimentally contaminated manure water, the virus lived from 2 days to 7 weeks. The virus will survive in pork products for months, and will live for at least 6 months in pickled, salted, and smoked meats.

Hog cholera is a blood infection. When the virus enters the pig's body, it passes to the bloodstream and develops there. The blood becomes infectious within 12 to 20 hours. The urine and manure usually contain the virus within 3 days. Secretions of the eyes and nose also become infectious by the third day.

Pigs seldom show symptoms before the fourth day and may fail to show symptoms for 7 days or longer. In chronic infections, symptoms may not be apparent for much longer periods of time. Maximum growth of virus is usually reached in 6 to 8 days. However, infected animals can transmit the disease before any symptoms appear. In chronic infections, these animals may transmit the disease for 2 or 3 weeks or longer.

### SYMPTOMS OF HOG CHOLERA

You should suspect hog cholera if your hogs show any of the following signs:

- Fever—often 105° F. or higher. Temperature usually stays above normal for several days, then gradually drops, often becoming subnormal.
- Loss of appetite. Pigs may appear depressed and become inactive.

- Loss of coordination—especially in the hindquarters. Pigs may stagger and sway as they walk, and eventually collapse in any position. This is most easily seen just after pigs are made to get up and walk.
- A tendency for pigs to pile on one another. As the disease progresses, the pigs may tend to go off from the rest of the herd and lie alone.
- Fits or convulsions. This is not a common symptom, but does occur in some cases.
- Purplish discoloration or blotching of the skin. This is most often seen on the ears, snout, or abdomen, and is most apparent in white hogs or in light-skinned areas of other breeds.
- Constipation in early stages of infection. A yellowish gray diarrhea develops after the animal has been sick a day or more. Diarrhea often gets progressively worse.
- Vomiting.
- Eye discharge during early stages of the disease. Later, this discharge becomes thicker and gums the eyelids together.
- "Shaker" pigs—or other trouble at farrowing. Abortions; stillborn or weak pigs; weak pigs which die soon after birth; "shaky" or "jittery" pigs; or a high mortality from birth to weaning may be indicative of hog cholera.

*However, many hog cholera symptoms resemble those common to other diseases. Also, some forms of hog cholera do not show typical symptoms. So if your pigs are sick, "suspect cholera first" and call your veterinarian at once.*

A standard diagnostic procedure for hog cholera has been developed. This procedure includes both laboratory tests and field examination by a qualified veterinarian. State and Federal veterinarians specially trained in hog cholera diagnosis are located throughout the country to give immediate assistance.

### HOW HOG CHOLERA SPREADS

Hog cholera virus enters the animal's body through the mouth, nose, eyes, or through wounds or abrasions of the skin. A susceptible pig gets the disease by contact with infected animals or with contaminated facilities and premises.

Common methods of spread are by:

- Adding infected pigs to a susceptible herd.
- Marketing apparently healthy pigs from a herd where hog cholera exists.
- Trading in cull or "junk" pigs which have chronic hog cholera.
- Transporting pigs in contaminated vehicles or housing pigs in contaminated premises.
- Disposing of dead animals improperly. Dogs, crows, and other animals or birds may carry the disease from infected carcasses.
- Feeding uncooked or improperly cooked garbage or table scraps. Raw pork scraps in such garbage may contain hog cholera virus.
- Carrying the disease on clothing, equipment, or vehicles from an infected to a healthy herd.
- Using vaccines improperly. For instance, mixing unvaccinated pigs with pigs freshly vaccinated with modified live virus vaccines has been a common source of spread. Using these vaccines without serum when serum was recommended has caused outbreaks. Vaccinating unthrifty pigs or pigs under stress has also caused the disease. Finally, vaccinating pregnant sows with modified live virus vaccines or exposing pregnant sows to fresh vaccinates has been a particularly troublesome method of spreading hog cholera.

Transmission through the pregnant sow:

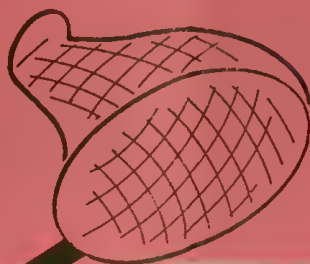
- Field evidence indicates that the pregnant sow may harbor and transmit hog cholera virus through her offspring, without showing clinical evidence of illness herself. Sows exposed to hog cholera virus—either field strains or modified live virus vaccines—during pregnancy have, in some instances, transmitted the disease to their unborn pigs. The pigs thus carry the virus at birth and can transmit it to susceptible hogs.
- Hog cholera may not be recognized in baby pigs because the usual symptoms and post mortem findings are not present. Often the disease develops slowly—or appears in chronic form. In many cases, hog cholera is not detected until it has spread to older susceptible pigs.

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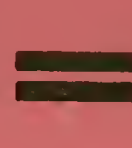
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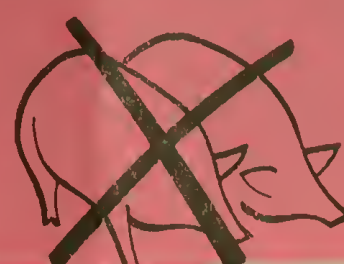
CONFINE



STAMP OUT



NO HOG CHOLERA



NO VACCINATION COSTS

AND

